County of Los Angeles
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WILLIAM T FUJIOKA
Chief Executive Officer

August 29, 2014

To: Supervisor Don Knabe, Chairman
Supervisor Gloria Molina
Supervisor Mark Ridley-Thomas
Supervisor Zev Yaroslavsky
Supervisor Michael D. Antonovich

From: William T Fujioka
Chief Executive Officer

STATUS REPORT ON THE STEPS TAKEN TO PREPARE FOR THE POTENTIAL EFFECTS OF CLIMATE CHANGE (ITEM NO. 55-A, AGENDA OF JULY 3, 2012)

This memorandum is in response to the Board's motion of July 3, 2012, directing the Chief Executive Officer, in conjunction with the Directors of Public Health, Public Works, Beaches and Harbors, Regional Planning, and the Fire Chief, and in cooperation with applicable utilities, to provide the Board no later than six months from approval of the motion:

1) Review the information provided by the recently released study of the University of California, Los Angeles (UCLA) "Climate Change in the Los Angeles Region" project, as well as other relevant information;

2) Document the steps departments are taking to prepare for the projected effects of climate change;

3) Report back to the Board with a cost analysis on the steps departments are taking to prepare for the projected effects of climate change; and

4) Recommend any additional actions that the County should take to help the region prepare for the likely effects of climate change.

On January 3, 2013, July 26, 2013, and April 24, 2014, we submitted status reports. This memorandum is an update to those reports, including summarizing the cited County Departments' efforts to address the actions noted above, and the status on the release of the remaining parts of the UCLA Climate Change in the Los Angeles Region study.

UCLA Climate Change Study

As previously reported, in June 2012, UCLA released the first part of the Climate Change study, which focused on temperature, and subsequently, in June 2013, UCLA released the second part of the future projections of snowfall. These studies are downloadable for your review at www.c-change.la.

It should be noted that the release of the third part of the study - Precipitation/Cloud Cover has been extended to the end of 2014. Additionally, the remaining studies, which consist of Santa Ana Winds, Wildfire, Hydrology, and Sierra Nevada Snowpack has been extended for release some time in 2015.

Therefore, this report is to provide the Board with: 1) an update on the preliminary responses prepared by the cited Departments, specifically, on the UCLA Climate Change studies related to temperature and snowpack; and 2) a summary of the Departments' progress and ongoing efforts to prepare for the likely effects of climate change.

SUMMARY OF COUNTY DEPARTMENTS RESPONSE ON CLIMATE CHANGE

Beaches and Harbors

The Department of Beaches and Harbors (DBH) has provided their comments on the available UCLA Climate Change studies, as outlined in Attachment I. In concert with this analysis the following studies were also reviewed by the Department: Sea Level Rise Vulnerability Study for the City of Los Angeles prepared by the University of Southern California (USC) Sea Grant; Sea Level Rise for the Coasts of California, Oregon, and Washington: Past, Present and Future released by the National Research Council; and The Impacts of Sea Level Rise on the California Coast by California Climate Change Center.

DBH is currently working on several initiatives to prepare for the projected threats of sea level rise and winter coastal storms. More recently, the Department was awarded the Climate Ready Grant to develop a seasonal sand berm protection program. This project will include the science and engineering of sand berms to optimize protection of County beaches and facilities such as parking lots, bike paths, maintenance yards, and concession buildings for use by the public. Additionally, DBH is providing data to the United States Geological Survey and others for development of shoreline change projections and a coastal storm modeling system, which DBH will utilize to assess the County's most vulnerable beach locations in informing future sand berm and other decisions. For the long-term, DBH will continue its efforts of identifying and securing offshore sand sources for future beach nourishment needs to mitigate sea level rise.

Fire Department

As previously reported, the Fire Department (Fire) continues to monitor both the natural environment and the long range weather trends, in addition to tracking conditions associated with climate change. Fire acknowledges that warmer, drier conditions ushered in by climate change, has created ideal conditions for wildfires in Southern California. As a result, the Department is in the process of instituting strategic changes to several wildland fire prevention programs to address climate change, in addition to implementing business practices associated with this effort that will maximize workforce capacity and leverage partnerships and resources with stakeholders to prepare for the increased threats to lives and property. Additional information is provided in Attachment II.

Internal Services Department

Internal Services Department (ISD) is also an essential partner in the field of climate change, and through its Office of Sustainability, the Department continues to work collaboratively with other County Departments on these efforts, including initiatives on energy and environmental programs that are administered by ISD. More detailed information on these programs is provided in Attachment III, ISD's semiannual report to the Board on Energy and Environmental Policy, or at the County's comprehensive energy and environmental website: http://green.lacounty.gov

Parks and Recreation

The Department of Parks and Recreation (DPR) has been proactively working on the enhancement and transformation of County Parks for the adaptation of climate change. In June 2011, DPR released an Urban Forestry manual, and subsequently, in June 2014, the Park Design Guidelines and Standards. The Department indicates both manuals provide design professionals, County staff, and other agencies with guidance on such topics as landscaping for water conservation and drought-tolerant plants, protection, preservation, maintenance, and sustainability efforts. DPR is currently undertaking a pilot project, which seeks to redesign an 11-acre park in East Los Angeles with a focus on reducing the park's carbon footprint and promoting sustainable environmental practices in the surrounding community. In additional conservation efforts, "smart controllers" at seven County parks have yielded a 23 percent reduction in water usage over a year-long period. It should be noted that DPR continues to strive to raise public awareness of the importance for achieving sustainability through the use of renewable energy resources, in addition to addressing climate mitigation and adaptation challenges through its planning, design, construction, and renovation projects and practices. Additional information is provided in Attachment IV, Parks and Climate Change: The L.A. County Story, or UrbDeZine website (http://losangeles.urbdezine.com/2014/07/29/parks-and-climate-change-the-l-a-county-story/).

Public Health

The Department of Public Health (DPH), in collaboration with other County Departments, external stakeholders, local government, and community partners, has been proactively at the forefront of climate change preparation, adaptation, and mitigation activities. In August 2014, DPH released two reports on climate change and health: 1) Your Health and Climate Change in Los Angeles County, written for the general public on how the climate is expected to change in Los Angeles County and the health impacts; and 2) Framework for Addressing Climate Change in Los Angeles County, which outlines DPH's Five Point Plan to Reduce the Health Impacts of Climate Change as a model for other agencies' plans. Both reports are available on DPH's website at www.publichealth.lacounty.gov/eh.

DPH also continues to actively participate in various workgroups and implement collaborative initiatives for public awareness, education, as well as interagency collaboration on climate change.

Additionally, beginning in September 2014 through fall of 2015, DPH indicates it will launch the second phase of the Climate and Health Workshop Series. Through a series of 16 workshops, DPH is educating the workforce about significant climate change topics that engage staff in adaptation planning activities.

Additional information on DPH's climate change activities are outlined in Attachment V.

Public Works

The Department of Public Works (DPW) analysis of the UCLA and USC Climate Change studies and summary of the Department's practices to address climate change are provided in Attachment VI. Since the Department's progress report to the CEO in December 2012, DPW has initiated several actions to address climate change impacts, additionally, the Department has created a framework for climate adaptation strategies by establishing a matrix that would guide and track the strategy development (Attachment VI-Table 2). Key categories of this matrix include:

- Impact Sectors (socio-economic, water supply, civil infrastructure, adaptation funding, and emergency management);
- Vulnerability and risk assessment of potential impact; and
- Adaptive capacity and needs (i.e. policies, plans, guidelines, programs, and practices).

DPW has also established a sustainability initiative to include strategic actions that would reduce Greenhouse Gas and air pollutant emissions and address climate change threats and infrastructure vulnerabilities. DPW continues to explore new ideas to develop, implement, and maintain Countywide adaptation strategies to ensure the County community and public services will be resilient against climate change threats. Details of the latest achievements of sustainability initiative are available on DPW's website at http://dpw.lacounty.gov/adm/sustainability/Default.aspx.

Regional Planning

The Department of Regional Planning (DRP) indicates it has reviewed the first two UCLA Climate Change studies on temperature and snowfall. Additionally, DRP comments highlights major planning and sustainability initiatives that are currently underway by the Department to address climate change through adaptation and mitigation strategies in the unincorporated areas. These efforts include: Antelope Valley Area Plan Update; Marina del Rey Visioning Effort; East Los Angeles 3rd Street Plan; West Carson Transit Oriented District Specific Plan; Willowbrook Transit Oriented District Specific Plan; Healthy Neighborhood Design Guidelines; and the Small Lot Subdivision Ordinance. Additional information on these initiatives, collaborations with other County Departments and community partners, as well as the Countywide General Plan Update and related efforts, including the Community Climate Action Plan (CCAP) for the unincorporated areas are provided in Attachment VII. The draft CCAP is also available on the DRP's website at www.planning.lacounty.gov/ccap.

OTHER

On June 27, 2014, a motion was introduced by Los Angeles City (LA City) Councilman Paul Koretz, to increase LA City's efforts and community outreach on climate change in the Los Angeles Region. The motion also invited neighboring sister cities to adopt equally-aggressive or stronger greenhouse gas emission reduction policies and targets, and to partner with the 96 neighborhood councils of Los Angeles to assist in those efforts. It should be noted that LA City's motion outlines several actions that are parallel to the Board's motion approved on July 3, 2012. Additionally, the cited County Departments continue to work closely with neighboring cities, agencies, and local partners in several climate change initiatives and community outreach opportunities, as well as participating in or leading various stakeholder groups and discussions to broaden the regional dialogue on climate change in Los Angeles County.

On August 5, 2014, this Office met with a representative from the Los Angeles Regional Collaborative for Climate Action and Sustainability (LARC), who is leading this effort through a partnership with UCLA and the City of Los Angeles, as well as collaboration with USC on the research and development of various climate change studies. In addition to the noted studies prepared by UCLA, LARC partnered with USC Sea Grant Program to prepare the Sea Level Rise Vulnerability Study. As mentioned, the study is a summary of initial

research on the potential impacts of sea level rise and associated flooding from storms for coastal communities in the City of Los Angeles. Additionally, the study concentrates on the City's three coastal regions: Pacific Palisades from Malibu to Santa Monica; Venice and Playa del Rey; and San Pedro, Wilmington and the Port of Los Angeles. This study was also made available to Departments for their review and analysis.

We are encouraged to continue our discussions and networking with LARC, and in concert with County Departments, on the framework for a regional initiative that will help mitigate the causes and adaptation of climate change, in addition to increase the public's awareness within Los Angeles County.

NEXT STEPS

As highlighted in this report, the cited County Departments continue to be strategic in their approach to address climate change, as this will be an ongoing effort for some time to come. Therefore, we will continue to keep the Board informed of the Departments' progress, in addition to the action items noted in this report. We anticipate our next status will be provided to the Board by June 30, 2015.

If you have any questions or need additional information, please let me know, or your staff may contact Rita Robinson at (213) 893-2477, or via email at rrboinson@ceo.lacounty.gov.

WTF:RLR
AMT:os

Attachments (7)

c: Executive Office, Board of Supervisors
County Counsel
Beaches and Harbors
Fire
Internal Services
Parks and Recreation
Public Health
Public Works
Regional Planning

ATTACHMENT I

DEPARTMENT OF BEACHES AND HARBORS

ACTIONS TAKEN BY BEACHES AND HARBORS TO PREPARE FOR CLIMATE CHANGE AND SEA LEVEL RISE

Similar to our January 3, 2013 report, the Department of Beaches and Harbors (DBH) continues to research and prepare for climate change and sea level rise in coastal regions by not only monitoring and reviewing national and local reports/studies, but also attending the annual American Shore and Beach Preservation Association (ASBPA) conference and the California Marine Affairs and Navigation Conference (CMANC), which often have leading experts on sea level rise and climate change.

Key findings of the studies reviewed by DBH are listed in the table below. Collectively, the results indicate that over the next century, sea level in Southern California could potentially rise by up to five feet, the impacts of which will be most severe during major storm events. Potential impacts include coastal flooding and shoreline retreat, which can result in damage to infrastructure, property, and communities in coastal regions.

Organization(s)	Study Title and Release Date	Key Findings
UCLA Climate Change Studies: UCLA Institute of the Environment, the City of Los Angeles, and Los Angeles Regional Collaborative for Climate Action and Sustainability (includes municipal governments, agencies and universities)	Temperature Study: "Mid-Century Warming in the Los Angeles Region" **Released 2012**	1) By mid-century, average annual temperatures will rise by 4-5 degrees Fahrenheit. 2) Coastal locations will have 2-3 times the number of extremely hot days. 3) High elevations and inland areas will have 3-5 times the number of extremely hot days.
	Mid- and End-of-the-Century Snowfall in the Los Angeles Region (Produced by UCLA Department of Atmospheric and Oceanic Sciences) **Released June 2013**	1) By mid-century, Los Angeles region's mountains may see a reduction in snowfall of up to 42% if greenhouse gas emissions continue to increase. 2) Reduced snowfall could potentially alter important hydrological and ecosystem processes in Los Angeles, affecting water resources and plant and animal habitat.
	Seal Level Rise Vulnerability Study for the City of Los Angeles (Produced by University of Southern California (USC) Sea Grant, City of Los Angeles, and ICLEI – Local Governments for Sustainability) **Released January 2014**	1) Sea level rise in Los Angeles is expected to increase 0.3 - 2.0 feet 2000-2050 and 1.3 - 5.6 feet by 2100. 2) As sea level rise accelerates, additional steps will need to be taken to expand, stabilize and safeguard beaches, including sand and dune replenishment and the construction of groins, jetties, and breakwaters. 3) Minimal impacts are identified in the 50-year sea level rise (SLR) scenario. Identified as the most vulnerable areas during severe storms in the 100-year SLR scenario are Will Rogers State Beach at Temescal Canyon; areas of Venice Beach and the Venice Canals, Marina del Rey, Playa del Rey and Dockweiler Beach; Ballona Creek; Cabrillo Beach; and areas around the Port of Los Angeles.

Organization(s)	Study Title and Release Date	Key Findings
National Research Council	Sea-Level Rise for the Coasts of California, Oregon, and Washington: Past, Present and Future **Released June 2012**	1) The Intergovernmental Panel on Climate Change (IPCC) projects that sea level will rise by as much as nine inches by 2030, 1½ feet by 2050, and four feet by 2100 (in comparison to 2000 levels). 2) For Southern California, sea level will rise by as much as one foot by 2030, two feet by 2050, and five feet by 2100 (in comparison to 2000 levels). 3) As most coastal damage occurs during storms, sea level rise will magnify these impacts, particularly when there is a confluence of large waves, storm surges, and high astronomical tides. 4) Together, storms and sea-level rise will result in coastline retreat, ranging from less than a few inches per year for cliffs to several feet for beaches and dunes.
California Climate Change Center (established by the California Energy Commission's Public Interest Energy Research (PIER) Program)	The Impacts of Sea-Level Rise on the California Coast **Released May 2009**	1) Sea level along the California coast is projected to rise by as much as 4½ feet by 2100. 2) A 4½-foot rise in sea level would put 480,000 people at risk from coastal flooding and result in a potential loss of $100 billion in property and of 41 square miles of coast due to accelerated coastline erosion. 3) Coastal armoring is one potential adaptation strategy, at a cost of an estimated $14 billion to build the needed 1,100 miles of new or modified coastal protection structures.

One recent step taken by DBH in preparation for sea level rise was its application for and award of a Climate Ready grant from the California State Coastal Conservancy to develop a seasonal sand berm protection document with science and engineering behind it. For over 30 years, DBH has built seasonal sand berms at various beaches to protect public facilities (i.e., parking lots, bike path, maintenance yards, and concession buildings). However, they have been built based on empirical observation and may not be built at optimum height, width, and location. With the threat of sea level rise and a predicted increase in winter coastal storms with high tides, a seasonal sand berm program based on science and engineering will optimize protection of public facilities and allow maximum use by the public.

Additionally, DBH will also be exchanging information and data with the United States Geological Survey (USGS), USC Sea Grant, and AdaptLA as they embark on a collaborative study that will look at shoreline change projections and develop a Coastal Storm Modeling System for Southern California. The data, model, and results (to come out by the end of 2015) will be utilized to assess vulnerable beach locations and optimize the Department's seasonal sand berm program. Otherwise, we continue in efforts to identify and secure offshore sand sources for future beach nourishment needs.

ATTACHMENT II

FIRE DEPARTMENT

COUNTY OF LOS ANGELES

FIRE DEPARTMENT

1320 NORTH EASTERN AVENUE
LOS ANGELES, CALIFORNIA 90063-3294

DARYL L. OSBY
FIRE CHIEF
FORESTER & FIRE WARDEN

August 15, 2014

TO: RITA L. ROBINSON, DEPUTY CEO
COMMUNITY SERVICES CLUSTER

FROM: DARYL L. OSBY, FIRE CHIEF nrs For DLO

JULY 3, 2012 BOARD MOTION, AGENDA ITEM 55-A
SECOND STATUS REPORT ON STEPS TAKEN TO PREPARE FOR THE POTENTIAL EFFECTS OF CLIMATE CHANGE

On July 3, 2012, the Board approved a motion requesting the Department's progress on the items outlined in the University of California, Los Angeles "Climate Change in the Los Angeles Region" project. This memorandum serves as a second Board status report and highlights progress on initiatives outlined in the Fire Department's January 2, 2013 status report, including additional strategic efforts currently underway to address the projected effects of climate change.

The warmer, drier conditions ushered in by climate change, has created ideal conditions for wildfires in Southern California. The rise in temperatures and prolonged periods of drought has increased the fire ignition potential, frequency, and duration of wildfires. In addition, the shorter and warmer winters, when combined with a decrease in snowfall and soil moisture reserves, have extended the traditional fire season.

Wildfires have major economic impacts and their costs could rise to millions of dollars annually. In order to protect communities and natural resources, the Fire Department tracks conditions associated with climate change and modifies plans accordingly. For example, the Department is in the process of instituting strategic changes to several wildland fire prevention programs to adapt to climate change. Programs affected include integrated vegetation management, strategic fire plan implementation, brush clearance inspection program, and fuel modification plan review. The strategic business process changes associated with these programs will maximize workforce capacity and leverage partnerships and resources with stakeholders to prepare for the increased threats to lives and property.

In addition to these effective defensible space programs, the Fire Department enforces fire and building codes related to the development in the Fire Hazard Severity Zones (FHSZ) in Los Angeles County. The Department has updated the FHSZ requirements in Title 32 (Fire Code) using the latest scientific data and methodologies to reduce the home ignition potential.

To further evaluate changes to the natural environment, the Fire Department is currently working with NASA Jet Propulsion Laboratory scientists, along with key federal, State and local agencies, to study the effects of climate change on fire danger. Specifically, the team is evaluating the use of remote sensing satellite data to measure patterns and relationships between temperature, precipitation, soil moisture, topography, and moisture levels in vegetation. The data will be utilized to create real-time fire danger products, including regional susceptibility and large fire potential.

The Sea Level Rise Vulnerability Study prepared by the University of Southern California for the City of Los Angeles has been reviewed by staff for Fire Department impacts. A Department Tsunami Response Policy, released in November 2013, addresses response procedures associated with immediate coastal flooding.

Climate change adaptations are now part of the Fire Department's daily operations. The Department's protocols and procedures have been issued for heat-related injuries, water conservation, power and fuel conservation, storm water, and waste and facilities management. In addition, vehicles are a major source of greenhouse gases (GHG) emissions and the Department's Fleet Services Division is proactively mitigating the GHG production by acquiring hybrid and alternative fuel vehicles and implementing new vehicle maintenance initiatives.

In closing, the Fire Department continues to collaborate with other County departments to develop and implement best management practices.

For any questions or concerns, please contact me at (323) 881-6180.

DLO:yh

ATTACHMENT III

INTERNAL SERVICES DEPARTMENT

County of Los Angeles
INTERNAL SERVICES DEPARTMENT
1100 North Eastern Avenue
Los Angeles, California 90063

JIM JONES
Director

Telephone: (323) 267-2101
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"To enrich lives through effective and caring service"

February 20, 2014

To: Each Supervisor

From: Jim Jones
Director

Subject: **ENERGY & ENVIRONMENTAL POLICY REPORT #15**

This is the 15th semiannual report to your Board to discuss ongoing work by the Internal Services Department (ISD), including its County Office of Sustainability (COS), in support of the County's Energy and Environmental Policy.

Nearly all of the former ARRA programs, which were discussed in detail in the last report to your Board, will be continued through calendar year 2014 using funds received from the California Public Utilities Commission (CPUC). These programs were authorized by the CPUC and ordered to be made available directly within the County's buildings and throughout the Southern California region. The County, through ISD, was named as the administrator of the newly established Southern California Regional Energy Network (SoCalREN). In January 2013, your Board authorized ISD to accept funds from the CPUC to administer and implement programs under the SoCalREN.

Below are updates on various programs and initiatives overseen by ISD, as described in the following sections:

I. REPORT OVERVIEW

Programs for Los Angeles County, Southern California, and Beyond

A. Programs for Internal County Operations
B. Programs for Public Agencies
C. Programs for Residents
D. Programs for Contractors
E. Programs for Businesses
F. "Big Picture" Programs

II. DETAILED PROGRAM DESCRIPTIONS

A. Programs for Internal County Operations

1. Energy Management

ISD's Energy Management Division provides project implementation and other support services for County departments as detailed below.

ISD continues its highly successful building retro-commissioning program, which "tunes up" heating, ventilating, and air conditioning (HVAC) systems. By ensuring that HVAC equipment and systems perform optimally, departments' utilities spending is decreased and energy is utilized efficiently. Retro-commissioning projects are currently taking place at four Sheriff's stations, the Los Padrinos Juvenile Hall, and three health centers.

ISD has completed the installation of efficient chillers and ancillary equipment at the LAC+USC Medical Center central plant. ISD is currently in the preliminary stages of an additional project at LAC+USC to improve the energy efficiency of the chilled water delivery system to each building served by the existing power plant. These projects are expected to save the facility approximately 1.8 million kilowatt-hours (kWh) and $250,000 annually. Funding for these projects derives from a 2007 settlement with the Los Angeles Department of Water and Power (LADWP).

ISD continues to install high-efficiency fluorescent lamps in Probation Camps, Sheriff Detention Facilities, and various other County sites by utilizing the Energy Investment Program (EIP) approved by your Board in 2012. The EIP is a "revolving loan fund" program. Departments are able to implement energy efficiency projects by utilizing ARRA seed funds, and then replenish these funds through their utility savings until the projects are repaid.

ISD is currently developing scopes of work for several library facilities to install energy efficiency measures, including solar, that will reduce energy usage by a minimum of 20 percent and, where possible, generate as much energy annually as the facilities consume. This broader development and implementation of this "zero net energy" strategy is being investigated by ISD for more widespread adoption.

ISD is now working with the Department of Public Works (DPW) to solicit bids to engineer and install an optimum fixed-flow hydropower pressure-reducing turbine at one of DPW's water pumping stations. This turbine will provide green, sustainable power and will offset electrical consumption at the pumping station by a minimum of 425,000 kWh per year.

ISD is currently retrofitting older emissions reduction systems at both the Civic Center and Pitchess Cogeneration Plants, which will also provide operating efficiencies by increasing plant electrical output. Upgrades at the Pitchess Plant will increase safety at the facility by eliminating the usage of hazardous chemicals. Upgrades at the Civic Center Cogeneration Plant to its steam turbine generator and cooling tower water pumps will increase electric output and create more efficient operations. These two projects will save over $1 million in annual operating costs.

ISD is currently coordinating with DPW, the Department of Parks and Recreation, and the Sheriff's Department on lighting upgrades and potential solar and efficient pool pump retrofit projects.

ISD is currently supporting Department of Health Services' Capital Projects program to replace old, inefficient boilers at Rancho Los Amigos Rehabilitation Center. This project comports with new mandatory South Coast Air Quality Management District emissions restrictions.

2. Fleet and Transportation

ISD continues to assist other departments in reducing the greenhouse gas (GHG) emissions generated by County fleet and transportation generally, as detailed below.

ISD assisted the Sheriff's Department in obtaining $7 million of grant funding from the South Coast Air Quality Management District. The funding consists of two Carl Moyer Program grants, which will enable the Sheriff's Department to offset the costs of replacing 37of its 82 Prisoner Transportation Buses with ultra-low emission diesel buses that produce less than 2% of the nitrogen oxide emissions and particulate matter than the older buses. All 37 new buses will produce fewer emissions combined than one single older bus. Sixteen of the 37 green buses are now in service. Eight additional buses are planned for delivery by July 2014. At present, ISD is assisting the Sheriff's Department with project management and ongoing grant reporting requirements.

As co-lead with the LADWP, ISD, along with 21 other agencies, received an $840,000 award from the California Energy Commission (CEC) to install Electric Vehicle (EV) charging infrastructure throughout the County. ISD is working with six County departments to install 93 chargers at 30 County locations. Last month, ISD conducted site walks and ordered necessary equipment. The first EV installations are expected to be completed by April 2014.

ISD and the Chief Executive Office (CEO) assisted several County departments in applying for more than $3 million in Mobile Source Air Pollution Reduction Review

Committee (MSRC) grant funding for bicycle rack installations, bicycle path improvements, compressed natural gas refueling stations and trucks, and EV infrastructure (see also the "Healthy Design Workgroup" discussed below). The MSRC has already approved these grants; contracts are forthcoming. ISD/CEO will formally request Board acceptance in the coming months.

3. Green Buildings

As part of continued efforts to support efficiency improvements to existing County buildings, ISD has developed a County Green Building Program that offers other departments Leadership in Energy and Environmental Design (LEED) certification services, LEED feasibility assessments, technical support for departments seeking to perform their own LEED certification, and other green building measures implementation support. All of these services complement ISD's existing Energy Management services and other sustainability policies adopted by the Board.

ISD has developed a reporting tool – The Green Building Dashboard – to complement the Green Building Program. The Dashboard enables County building managers to monitor energy usage and other sustainability measures in selected facilities. ISD has linked the Dashboard to the Green L.A. County website (green.lacounty.gov) where building managers can easily access it.

ISD continues to maintain and update the Green L.A. County website with environmental and energy efficiency news and information, articles, links to other departmental sustainability programs, and links to valuable related resources. Some recent additions to the website include content related to the severe state drought and water conservation programs and resources. ISD also completed and posted a "Drought Tolerant Landscape" handbook.

4. Green Leadership Awards

ISD participates annually in reviewing and scoring Green Leadership Awards submissions in a contest administered by the CEO's Quality and Productivity Commission. This program recognizes outstanding efforts by individuals and organizations in fulfilling innovative strategies to improve our environmental sustainability. ISD will begin reviewing applicant submissions in late February.

5. Healthy Design Workgroup

COS actively participates in the County's Healthy Design Workgroup (HDW) – a consortium of high-level representatives from several County departments, including the Arts Commission; Beaches and Harbors; CEO; the Community Development

Commission; Fire; Parks and Recreation; Public Health (group lead); DPW; and Regional Planning. The HDW meets regularly to develop and implement strategies for designing and building healthy environments within the County. The inter-departmental nature of this effort aligns with County strategic planning efforts and Supervisor Knabe's 2014 goals as Chair of the Board of Supervisors to encourage collaboration across County departments.

B. Programs for Public Agencies

As discussed in detail in prior reports to your Board, "Energy Upgrade California" is a State initiative to help Californians take action to save energy and conserve natural resources, reduce demand on the electricity grid, and make informed energy management choices at home and at work. It is supported by an alliance of the CPUC, the California Energy Commission, utilities, regional energy networks, local governments, businesses, and nonprofits to help communities meet State and local energy and climate action goals. EUC Programs are described in further detail in this report beginning with programs for public agency buildings below.

1. Southern California Regional Energy Center (SoCalREC)

ISD has developed the SoCalREC program to support the implementation of energy efficiency projects in public agency buildings and facilities throughout Southern California. Now marketed under the name, "The Energy Network," its sub-programs are described below.

a. Clean Energy Workforce

One of SoCalREN's objectives is to build a local workforce for the clean energy jobs of the future. A collaborative effort between the County, Citibank Community Development, and Emerald Cities Collaborative trains low and moderate-income residents for future jobs in greening public buildings. As part of SoCalREN's workforce development efforts, the County recently held a green economic summit to promote clean energy jobs.

b. Community Energy Efficiency Project Management System (CEEPMS)

This program will provide a few pilot cities with the capability to identify energy efficiency projects through an online permit tracking system, which prioritizes and expedites the permitting process. The software will match permits applied for against incentives available to ensure that each project owner is aware of them.

c. EEMIS Expansion

The Enterprise Energy Management Information Systems (EEMIS) was developed by ISD to provide a cost-effective means to monitor, analyze, and benchmark facility energy usage and costs utilizing a single energy management software tool for County buildings. EEMIS functions as a robust data warehouse which offers several services, including: energy consumption and financial bill archiving; online tracking, reporting and analysis; automated facility benchmarking tools; energy consumption and cost management tools; and energy efficiency project and identification support.

EEMIS has been made available to other local governments to provide energy management services. Participating agencies pay an incremental portion of ISD's EEMIS operating costs to join (which is a fraction of the cost of purchasing their own system) and ISD receives revenues for administration, implementation and technical support. To date, over 70 cities have signed up for EEMIS.

d. Master Lease Financing

Master Lease Financing provides lease financing to implement energy projects to all public agencies. The SoCalREC has prequalified a set of financial institutions to provide this financing and has also developed a simplified, standardized agreement which may be executed by the participating agency and financial institution. This financing will help public agencies implement a greater number of energy projects.

e. Public Agency Building Retrofits

This turnkey project provides public agencies with access to centralized, standardized, and streamlined energy retrofit services such as: financing, solicitation, project management, auditing, engineering, construction, and technical assistance, all delivered through cooperatively-procured contracts using competitively bid pools of pre-qualified energy consulting firms and contractors. These services complement services provided by the utilities (e.g., initial audits and incentives processing).

This innovative project mitigates the need for public agencies to develop comprehensive, in-house resources to assess and implement projects. It also accomplishes several goals including: encouraging collaboration among all stakeholders; increasing energy savings; delivering improved quality products and services at a lower cost; and completing whole building, street lighting, and water/wastewater retrofits at an accelerated rate.

The project launched in September 2013 and the first retrofit was completed in December 2013 - a lighting retrofit in a Culver City owned parking structure. To date,

27 public agencies are enrolled. Public agencies may opt to take advantage of the entire slate of services offered, or only selected ones. The Turnkey Project goal is to achieve 29,675,000 kWh and 400,409 therms in annual energy savings by December 2014.

f. Water/Energy Nexus

The Water/Energy Nexus pilot program is a collaboration among the County, the Metropolitan Water District, and several water utilities to quantify the energy savings achieved by conserving water in water system operations and in upgrading water utilities buildings and facilities. Because handling water is energy intensive, emphasizing certain water system enhancements in wholesale delivery, retail delivery, and wastewater treatment has a dual societal benefit in conserving both water and energy. ISD plans to compile and disseminate its findings for broader acceptance and usage statewide.

C. <u>Programs for Residents</u>

1. Assessment Vouchers & Discount Coupons

This program provides assessment vouchers and discount coupons to homeowners interested in pursuing EUC Advanced Home upgrades. Vouchers and coupons help homeowners pay for either a portion or the entire amount, respectively, of the home energy assessment cost, which constitutes the first step of an EUC upgrade. As such, this program incentivizes homeowners to participate in EUC upgrades.

2. Community Champions

Community Champions is a marketing and outreach program geared towards building community awareness of EUC and SoCalREN program offerings. More specifically, SoCalREN works directly with 'Community Champions' – supportive and engaged community organizations in targeted communities – to leverage their networks to increase awareness of and encourage participation in these program offerings.

3. Community Home Energy Retrofit Project (CHERP)

CHERP is a volunteer-based education and outreach strategy to develop sustainable delivery channels for EUC programs and offerings by developing a core group of supporting citizens within the community. CHERP helps promote residential energy efficiency upgrades at a city level in engaged communities.

4. Energy Champions

Energy Champions utilizes non-profit community organizations such as universities and alumni associations that have organized networking sources within their respective communities to promote EUC and generate project leads. When participating organizations secure leads that result in completed projects, they can receive financial incentives.

5. Green Building Labeling

The Green Building Labeling (GBL) program educates real estate professionals about green building certifications and the value of conducting green home upgrade projects, including energy efficiency upgrades. Through workshops and other modes of outreach and training, GBL impresses upon realtors that green homes are more marketable – both for homeowners looking to sell and those looking to buy. To date, 151 realtors have undergone training.

6. Home Upgrade & Advanced Home Upgrade

Home Upgrade and Advanced Home Upgrade provide incentives for comprehensive, single-family home energy efficient retrofits by promoting interactive whole-home combinations of measures such as: insulation; HVAC equipment replacement; duct replacement/repairs; air sealing; radiant barriers; and hot water systems, etc.

7. Low-income Single Family Rehabilitation Program

The Low-income Single Family Rehabilitation pilot program seeks to develop and implement a business process that connects County Community Development Commission (CDC) program clients to EUC via outreach and coordination of the respective programs' requirements.

The CDC Home Improvement Program (HIP) assists low income, owner-occupied single family homes with rehabilitation financing of up to $15,000. The low-income program educates interested clients about EUC measures for which they are eligible and about how best to integrate those measures into the rehabilitation work.

Program administrators encourage CDC-qualified contractors to also train to become EUC Home Upgrade qualified contractors such that they can best inform their customers about available programs.

8. Multi-Family Home Upgrade

Similar to the Home Upgrade and Advanced Home Upgrade programs for single-family homeowners, this program provides incentives to multi-family building owners to assess and implement comprehensive, interactive energy measures. The Multifamily Home Upgrade Program also promotes energy upgrades for portions of buildings where utilities are paid by both the tenants and landlord.

9. Single Family Home Financing

EUC utilizes Matador's Credit Union to provide single family homeowners with financing for their EUC Home Upgrade projects. Matador's Credit Union provides three loan options to qualified buyers, including a 4.99%, 5-year term loan; a 5.99%, 10- year term loan; or a 6.99%, 15- year term unsecured loan of up to $50,000 to qualified borrowers. In order to generate initial program participation with competitive terms and conditions, the program uses a loan loss reserve credit enhancement, which helps protect lenders against losses stemming from defaulted loans.

10. Social Media

EUC utilizes several social media outlets to promote programs to targeted audiences across the Southern California region. Social media offers ways to encourage program participation, publicize energy-saving tips and environmentally friendly news stories, and build a strong connection between EUC contractors and potential participants.

D. <u>Programs for Contractors</u>

1. Co-op Marketing

This program provides matching fund reimbursements to participating EUC contractors who conduct their own marketing and advertising. The contractor marketing and advertising materials must satisfy EUC brand guidelines to receive these funds.

2. Cool Comfort Program

The Cool Comfort program provides low cost financing to residential customers for HVAC and other retrofits through Matador's Credit Union. Under this program, qualified single family homeowners may finance projects for up to $50,000 under either 5 or 10 year term loans at a 4.99% or 5.99% interest rate, respectively. Cool Comfort incentivizes residents to adopt higher levels of equipment efficiency and supports the contractor community by yielding more retrofit jobs.

E. Programs for Businesses

1. Non-residential Property Assessed Clean Energy (PACE) Financing

ISD and the Treasurer & Tax Collector (TTC) are working together to administer a countywide PACE financing program for non-residential properties. The program provides financing through County-issued bonds for private sector energy projects, which are then paid back through assessments placed on the building owners' property tax statements. The program also provides marketing, education, recruitment, and technical support to property owners. The program's first PACE assessment was funded in July of 2013 and has an active application pipeline of over 40 projects.

On January 28, 2014, the Hilton Universal City hosted a ribbon cutting ceremony to announce project completion of its $7 million PACE energy upgrade. Los Angeles Mayor, Eric Garcetti, and Los Angeles County TTC, Mark Saladino, attended the ceremony, which was heavily covered by television and print media. The project is the second PACE-funded building upgrade in the County and the largest project in the nation. There are currently 39 projects in the PACE development pipeline, and the County PACE team is working with property owners and financers to move them forward.

F. "Big Picture" Programs

Alliance of Regional Collaboratives for Climate Adaptation (ARCCA)

ARCCA is a statewide consortium of climate adaptation organizations comprised of representatives from San Diego, Los Angeles, Sacramento, and the Bay Area, of which ISD is an active member. In mid-December, ARCCA members met to share high-value projects and best practices as well as news on upcoming legislative developments, conferences, and technical reports, and also discussed climate adaptation efforts throughout the State. In mid-January, ARCCA hosted a webinar with Climate Central to detail its new California sea-level rise tool. In early February, ARCCA joined a discussion with the Office of Planning and Research to learn about, discuss and comment upon California's "Environmental Policies and Goals Report." In the coming months, ARCCA will focus on: selecting high priority projects to work on for the year; drafting recommendations for President Obama's Task force on Climate Preparedness; and providing recommendations for the California Natural Resources Agency's update to the 2009 Climate Adaptation Strategy (now named, the "Safeguarding California Plan").

AmeriCorps

ISD participated in the planning process for the Governor's Initiative Program, of which the AmeriCorps Program is a part. AmeriCorps seeks to link talented young workers to local governmental entities to collaborate on regional sustainability projects. As such, AmeriCorps will provide training and guidance for future environmental leaders; bring crucial resources to local governments; and advance environmental sustainability projects throughout the County. ISD is leading a regional effort to apply for and obtain AmeriCorp workers to work in County and regional GHG reduction programs later this calendar year.

County Strategic Plan Revision

At the County strategic planning conference in early January, ISD/Regional Planning/Public Works jointly presented an environmental sustainability goal for the County's Strategic Plan . All County department heads were present, and the audience was receptive to this revision, which will lay the groundwork for more comprehensive and organized sustainability planning in the County and state.

Energy Atlas Project with UCLA

ISD has been heavily involved in contract negotiations with UCLA's Institute of the Environment and Sustainability for the development of an Energy Atlas to support countywide energy efficiency planning by local jurisdictions. The contract is nearly finalized and ISD will request authorization from your Board in March 2014 to execute the contract.

Los Angeles Regional Collaborative for Climate Action and Sustainability (LARC)

ISD serves as the County's representative to the LARC. LARC is an organization committed to supporting climate mitigation and adaptation initiatives by convening representatives from local government, non-profits, academia, and industry to define meaningful approaches to reaching collective climate and sustainability goals. Current LARC efforts include the following:

- Holding its first "3rd Month Forum" with USC's Sea Grant to discuss: key findings from USC's Sea Level Rise Vulnerability Study for the City of Los Angeles; a new regional sea level rise planning initiative to inform Local Coastal Programs; and the Draft Sea Level Rise Policy Guidance document.
- Re-launching its website, LARegionalCollaborative.com, to be more user-friendly and to serve as an informational umbrella for regional sustainability activities.

- Reviewing and reconciling data in the Regional Greenhouse Gas Inventory report and evaluating how best to disseminate this information to the public.
- Applying for a Strategic Growth Council grant with the County to create and carry out a curriculum targeted towards interest groups regarding the basics of sustainable land use and planning.
- Co-hosting the Safeguarding California public comment session in Irvine.
- Planning the Green Cities California conference in late February in San Diego as well as the California Adaptation Forum in late August in Sacramento.

Senate Select Committee on Climate Change and AB 32 Implementation

In early December, ISD attended the Senate Select Committee's hearing on "Opportunities to Build Resilient Communities, Cut Pollution, and Create Jobs through AB 32," which was hosted at UCLA's School of Law. The Select Committee heard testimony from an Atmospheric and Oceanic Sciences professor about the state of the climate, particularly in Southern California; a regulatory representative about AB 32 implementation throughout the State; and community leaders about opportunities to invest in jobs, pollution reduction, and resilient communities.

State and Federal Legislation

In conjunction with legislative consultants in Sacramento and Washington D.C., ISD continues to monitor and track pertinent legislative activities, especially those which support local government and regional greenhouse gas reduction programs and projects. Among the key legislation that ISD will continue to monitor is the implementation of AB 32 and Proposition 39 funds as discussed in detail in the last report to your Board.

ISD has also been working with the California Air Resources Board (CARB) in understanding the rollout of the State's Cap & Trade Emissions Market as mandated under AB32. Under Cap & Trade, large emitters in various industry sectors must reduce their GHG emissions and/or procure allocations for the emissions they produce ("capped entities"). The County's cogeneration plants at Civic Center and Pitchess meet the threshold established by CARB. As capped entities, these plants must comply with emissions reduction targets through 2020. ISD will review these impacts to the plants as part of the Fiscal Year 2015-16 Utilities Budget.

The Local Government Sustainable Energy Coalition (LGSEC)

The Local Government Sustainable Energy Coalition unites California cities and counties to leverage resources and work together in energy policy action and innovation

as well as climate action. More specifically, it shapes regulatory policy and utility programs by giving member governmental entities one strong voice before regulatory agencies (including the CPUC, the California Energy Commission, and CARB; stays informed and effective on energy issues; learns and shares best practices from experts and member governmental entities; and develops long-term energy strategies.

LGSEC also continues to monitor and officially respond to several regulatory matters at the CPUC, including: statewide energy efficiency programs development/energy data usage issues; energy efficiency financing; and long-term utility resource procurement planning. In early February 2014, LGSEC hosted its quarterly Energy Manager's meeting as well as its General Members meeting, where it discussed, among other things, updates on regulatory and legislative developments, PACE, the Regional Energy Networks, and Community Choice Aggregators; and strategies surrounding the 2015 CPUC planning cycle. At its recent Policy Committee meeting, LGSEC identified the following policy platform: Climate Change and Adaptation, Resource Management, Alternative Fueled Vehicles, and Innovation. As LGSEC Board Chair, COS plays a central role in these activities.

More detailed description about each of these programs described in this report, and other energy and environmental programs that are administered by other departments within the County and throughout the region, can be found at the County's comprehensive energy and environmental website: http://green.lacounty.gov.

If you have any questions, please contact me at (323) 267-2101 or Howard Choy at (323) 267-2006.

JJ:JC

c: ISD Board Deputies
William T Fujioka, CEO
Operations Cluster, Deputy CEO
Each Department Head

ATTACHMENT IV

DEPARTMENT OF PARKS AND RECREATION

UrbDeZine Los Angeles
Urban Planning + Design + Architecture + Historic Preservation

Parks and Climate Change: The L.A. County Story

July 29, 2014 By Clement Lau

Local and regional parks can be used to mitigate the urban heat island effect and minimize local climate change. Unfortunately, this idea is not often shared, discussed, and/or adequately understood. If you do a search on the web on "climate change and parks," you will find that most of the results are links to information about how climate change is impacting national parks. Examples include a discussion on the National Park Service (NPS) website, and recent articles published by National Geographic and Scientific America. While it is clear from studies that global warming is threatening national parks, I would like to focus instead on local and regional parks which I am more familiar with. Specifically, I will first briefly explain how local communities can use parks for climate change management, and then discuss with examples how the Los Angeles County Department of Parks and Recreation is addressing climate change and its effects.

Parks and Climate Change

Parks are the first and best line of defense against the urban heat island effect, and its mostly negative consequences of modified temperature, precipation, wind, and air quality patterns. In particular, urban parks cool and clean the air, improve and modify local wind circulations, and better regulate precipitation patterns. Well-vegetated parks, in various sizes and forms, mitigate the urban heat island effect and minimize local climate change. Reduced impact of the urban heat island may prolong or even prevent more widespread global climate change as the size and number of urban communities continue to increase. The American Planning Association (APA) has published a briefing paper which explains how cities use parks for climate change management. Summarized below are the key points:

- Parks moderate artificially higher temperatures from the urban heat island effect through shading and evapotranspiration.
- Parks enhance local wind patterns in cities through the park breeze (cooler air over parks replaces warmer air in adjacent city neighborhoods).
- Parks mitigate local precipitation anomalies amplified by the urban heat island effect.
- Parks sequester carbon and other pollutants trapped by the urban heat island that may otherwise alter local and global atmospheric composition.

(For a more detailed explanation of each key point, please read the APA briefing paper.)

The L.A. County Story

The Los Angeles County Department of Parks and Recreation (DPR) owns and manages a wide variety of parks and recreational facilities including local, community and regional parks, natural areas, wildlife sanctuaries, lakes, arboreta and botanic gardens, and trails. DPR also operates the largest municipal golf system in the world, and owns well-known cultural venues like the Hollywood Bowl and John Anson Ford Amphitheatre. To illustrate how local and regional parks can be and are being used to address the effects of climate change, I would like to highlight the following projects that my department has been working on:

Community Parks and Recreation Plans

As I shared previously (see Parks and Recreation: Not Just Fun and Games), DPR is currently preparing Community Parks and Recreation Plans to envision greener futures for the following six unincorporated communities in Los Angeles County: East Los Angeles; East Rancho Dominguez; Lennox; Walnut Park; West Athens-Westmont; and Willowbrook. This project is funded by the Strategic Growth Council through the Sustainable Communities Planning Grant Program. As part of our application for the grant, we explained in detail how parks improve air and water quality, protect natural resources, and reduce greenhouse gas emissions. When completed, each of the six plans will identify and address the unique park and recreation needs of the communities. Specifically, each plan will first examine existing conditions, including: local demographics; existing parkland and recreational facilities; parkland gaps; recreation programs currently offered; trees and tree canopies in existing parks; transportation, safety and connectivity issues as they relate to parks; and availability of land for recreation purposes. Based upon the review of existing conditions and findings from the public outreach process, the plan will provide a detailed assessment and prioritization of community needs. The plan will present conceptual designs for potential new park/trail projects and urban forestry plans to address the identified needs, promote exercising and walking, and expand the urban tree canopy. These designs and plans will be developed with substantial input from community members.

Park Design Guidelines and Standards

This document is intended to provide design professionals, County staff, and other agencies with guidance on how to design and develop parks that meet County standards and expectations. It incorporates input from DPR staff, other County departments, as well as outside partners such as non-profit organizations and private developers which have an interest in park design. This manual is very detailed and addresses topics such as: spatial organization (e.g. physical access and adjacency compatibility, security and safety); buildings (e.g. contextual site and sustainability considerations); circulation (e.g. pedestrian, vehicular, bicycle); recreational facilities (e.g. ball fields, sports courts); landscaping (e.g. planted areas and irrigation); storm water management (e.g. grading and drainage, low-impact development strategies); utilities (e.g. electrical and lighting design); preferred manufactured products to be used at the parks; and preferred plant lists for both potable and recycled water.

Urban Forestry Manual

All of DPR's facilities have one thing in common: trees. They are our greatest asset in combating global warming, cooling our park patrons, capturing stormwater runoff and pollution, reducing heat islands, and cleaning the air we breathe. DPR's urban forest is an integral component of the larger southern California ecosystem which continues to evolve and adapt. DPR is responsible for maintaining this valuable resource, which is susceptible to decay and disease. To sustain the urban forest, we must know how, when, and why to intervene in its processes. This manual provides guidelines and standards for planning, protection, preservation, maintenance, and sustainability of the urban forest under DPR's care. Specifically, it addresses various topics such as: the County's Tree Preservation Policy; pruning standards; watering practices; soil condition and drainage; protection of trees during construction; tree removal, replacement; and planting; and safety standards. Also included in this manual are the inventories of trees at five County parks and the documented environmental benefits (carbon sequestration, stormwater capture, and energy saving) of the trees as calculated using the i-Tree software.

Eugene A. Obregon Park Green Pilot Project

The goal of this Green Pilot Project is to create a conceptual site design for an existing County park, incorporating environmentally responsible practices to reduce the County's carbon footprint and promote environmental stewardship. Eugene A. Obregon Park is an 11-acre local park located in the unincorporated community of East Los Angeles. DPR staff first completed an in-depth site analysis to identify potential opportunities and constraints for the park to achieve greater efficiencies in building and site design, potable water usage, and on-site stormwater management. Following this assessment, a conceptual park renovation site plan, along with a detailed scope of work, was developed. The conceptual site plan was designed to meet the following criteria:

- The efficiency upgrades must maintain the functional needs of park users;
- Materials and design techniques would be used to reduce the park's carbon footprint;
- The design must include an educational component to promote sustainable environmental practices throughout the community; and
- The park must continue to provide a beautiful public space for the community's enjoyment.

In 2010, DPR installed solar panels on several facility rooftops at Obregon Park. The project was conceived as a part of the Green Pilot Project. The solar panels are projected to reduce electricity consumption by more than 20% while reducing carbon dioxide (CO_2) emissions by 40,000 lbs. per year. As one of the first solar panel projects implemented at a County park, this project raised public awareness of the importance for achieving sustainability through the use of a renewable energy resource.

Smart Controllers

"Smart controllers" automatically program the irrigation system operations based on daily weather conditions, which are transmitted to the controllers through a network of satellite communications systems. In response to the recent water shortage and the County Board of Supervisors mandate to reduce water usage, DPR recently replaced existing irrigation controllers with water efficient "Smart controllers" at seven County parks: Jesse Owens Community Regional Park, Whittier Narrows Recreation Area, Kenneth Hahn State Recreation Area, Hollywood Bowl Performing Arts Center, El Cariso Community Regional Park, Veterans Memorial Community Regional Park, and Frank G. Bonelli Regional Park. After a twelve-month period of performance-monitoring at these County parks, a 23% reduction in water usage was observed. This water usage reduction resulted in 219 million gallons of water saved, and a $385,000 cost savings. An initial $1 million was funded by the County's Chief Executive Office for project construction. As a result of this project, water utility companies gave DPR $208,000 of water conservation rebates.

LEED-EB Project: Placerita Canyon Natural Center and Natural Area

The Placertia Canyon Nature Center/Natural Area is the first County facility to be awarded LEED-EB (Leadership in Energy and Environmental Design for Existing Buildings) certification by the U.S. Green Building Council (USGBC). The facility was given the LEED-EB Silver rating for implementing measurable sustainable practices during construction and for post-construction maintenance and operations of the facility. The Nature Center building was originally constructed in 1971. As part of this project, the following renovations were made to the Nature Center building: energy and water conservation features including energy efficient air conditioning and cooling systems, exterior building wall insulations, new roofs, renovated bathrooms, windows and doors, septic system/leach field, court yard, and interior remodeling; accessibility upgrades in compliance with current ADA requirements; and a new gift shop. In July 2011 the facility received the National Association of County Parks and Recreation Officials "Environmental Leadership" award.

It is clear that local and regional parks can be used to mitigate the urban heat island effect and minimize local climate change. As explained above, DPR has been proactively and progressively addressing these challenges through its planning, design, construction, and renovation projects and practices. For more information about DPR's current and completed projects, please visit this

website.

Note: Photos by author.

Filed Under: Environment, Feature Posts, Los Angeles, Planning, Projects Tagged With: climate change, Community Parks and Recreation Plans, Global Warming, greenhouse gas emissions, LEED, Los Angeles County, Los Angeles County Department of Parks and Recreation, parks, smart controllers, smart growth, Sustainability, transit, trees, urban forest, urban forestry, urban heat island, urbanism

About Clement Lau

Clement Lau, AICP, has 15 years of professional experience in urban and regional planning. Currently, Dr. Lau is a Departmental Facilities Planner with the Los Angeles County Department of Parks and Recreation. He enjoys writing about a variety of planning issues and is on the author panel for UrbDeZine. He also has published articles in the California Planning & Development Report, Public Works Management & Policy, and Progressive Planning. Dr. Lau previously worked for Los Angeles County's Department of Regional Planning and the consulting firm of Cotton/Bridges/Associates in Pasadena. He has guest lectured on public policy and urban planning topics at the University of Southern California and California State University, Northridge. He holds a doctorate and master's in urban planning from USC, and bachelor's in economics from the University of Hawaii at Manoa.

Comments

Clement Lau says:
August 5, 2014 at 6:46 am

On a related note, please also check out L.A. County's Community Climate Action Plan at:
http://planning.lacounty.gov/CCAP

RETURN TO TOP OF PAGE

ATTACHMENT V

DEPARTMENT OF PUBLIC HEALTH

COUNTY OF LOS ANGELES
Public Health

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August 15, 2014

TO: Rita L. Robinson
Deputy Chief Executive Officer, Community Services Cluster

FROM: Cynthia A. Harding, M.P.H. Cynthia A. Harding
Chief Deputy Director

SUBJECT: **STEPS TAKEN TO PREPARE FOR POTENTIAL EFFECTS OF CLIMATE CHANGE (ITEM 55-A, JULY 3, 2013 BOARD AGENDA)**

This memorandum is to provide you a status update on the activities of the Department of Public Health with respect to climate change preparation, adaptation, and mitigation activities.

As reported last year, DPH 's internal Climate Change Workgroup developed the attached report, *Five Point Plan to Reduce the Health Impacts of Climate Change,* outlining five strategic priorities, specific goals, and objectives guiding the Department's climate change work:

1. Inform and engage the general public about the nature of climate change and the health-related co-benefits associated with taking action to reduce carbon pollution.

2. Promote local planning, land use, transportation, water, and energy policies that reduce greenhouse gas emissions and support the design of healthy, sustainable communities.

3. Provide guidance on climate preparedness to local government and community partners to reduce health risks and create more resilient communities.

4. Build the capacity of Departmental staff and programs to monitor health impacts, integrate climate preparedness, and improve climate response.

5. Adopt best management practices to reduce carbon emissions associated with Departmental facilities and internal operations.

Summary of Efforts

DPH's climate change activities this year have included internal capacity building as well as public education and collaboration with outside agencies. DPH provided the 16-session Climate and Health Workshop Series to educate the DPH workforce on climate change issues, developed presentations on the public health implications of climate change and delivered them to emergency volunteers and the public, released two reports on the health impacts of climate change and the value of interagency cooperation in addressing climate change, and developed survey questions for the Los Angeles County Health Survey to track knowledge of and attitudes regarding climate change. Additionally, DPH has shared its activities through participation in a variety of forums, most notably in a presentation at the 78th National Environmental Health Association (NEHA) Annual Educational Conference and Exhibition in July 2014.

DPH's climate change activities are outlined in more detail below:

Internal Capacity Building

Climate and Health Workshop Series

The Climate and Health Workshop Series, which began in October 2013 and continued through April 2014, featured 16 workshops that educated and engaged DPH staff on the topic of climate change. The workshops were developed in partnership with UCLA's Dr. Hilary Godwin and her graduate students and were open to invited staff from the Division of Environmental Health, Veterinary Public Health, and Public Health Nursing. Workshops covered the basics of climate change science, projections for Los Angeles County (presented by Katherine Reich, of Dr. Alex Hall's lab at UCLA), climate change communication, vulnerable populations, and specific impacts of climate change on such factors as air pollution, water availability, vector-borne disease, and food systems. These workshops allowed staff to engage with the material and served to further inform DPH's climate adaptation planning.

Beginning September 2014, the Climate and Health Workshop Series will be provided again, this time open to all DPH staff and hosted at four County locations for staff convenience. The series will continue through fall 2015.

Research

DPH developed questions pertaining to climate change awareness and attitudes for inclusion in the upcoming Los Angeles County Health Survey. The LA County Health Survey is a population-based survey that the Department uses to collect and analyze a broad range of public health data. These survey questions will help track the public's awareness over time of the relationship between climate change and public health, and will therefore help inform DPH messaging related to the public health impacts of climate change.

Public Education and Collaborations with Other Agencies

Climate and Health Report Series

In mid-August 2014, DPH will be releasing two reports on the public health impacts of climate change in Los Angeles County and the importance of interagency collaboration to coordinate climate change mitigation and adaptation activities.

The first report, *Your Health and Climate Change in Los Angeles County,* is written for the general public and describes how the climate is expected to change in Los Angeles County and how such changes will affect health.

The second report, *Framework for Addressing Climate Change in Los Angeles County,* is written for other local government agencies and other local health departments around the country. It outlines how climate change relates to the mission of different local agencies and provides guidance on how to develop a plan to address climate change at a specific agency. The report presents DPH's *Five Point Plan to Reduce the Health Impacts of Climate Change* as a model for other agencies' plans.

Collaborations

Collaboration is a theme in all of DPH's climate change activities—as seen above in collaborations with UCLA on workshops and intradepartmental collaborations on educational presentations. Formal collaborations likewise form much of DPH's climate change activities. DPH participates actively in the following workgroups and collaboratives:

- Healthy Design Workgroup. This interdepartmental County workgroup convened by DPH works to promote collaboration on projects that promote a healthy and sustainable built environment. The following County departments participate: Beaches and Harbors, the Chief Information Office, the Community Development Commission, Fire Department, Internal Services Division Office of Sustainability, Parks and Recreation, Public Health, Public Works, and Regional Planning.
- Climate Change Subcommittee. Convened by DPH and launching in August 2014, the Climate Change Subcommittee of the Healthy Design Workgroup focuses on promoting interdepartmental collaboration on climate change mitigation and adaptation projects.
- The Los Angeles Regional Collaborative for Climate Action and Sustainability (LARC). DPH has been a participating member since 2013.

Presentations

Collaboration between the Division of Environmental Health and DPH's Health Education Administration has led to the development of a Speakers' Bureau presentation on climate change basics and health impacts. The Speakers' Bureau features presentations targeted to the general community and to community-based organizations upon request.

In addition, collaboration between the Division of Environmental Health and the Public Health Emergency Volunteer (PHEV) Network Coordinator led to the development of presentations targeted to PHEV and Medical Reserve Corps (MRC) volunteers. The presentations focused on the basics of climate change and the types of emergency situations that are predicted to become more frequent and/or more severe with climate change. Presentations were delivered to PHEV and MRC volunteers in April and June 2014.

In summary, DPH climate change activities have focused on internal capacity building, public education, and collaboration with outside agencies. DPH will continue to provide updates as needed on our activities to prepare for the potential effects of climate change, including our collaborative initiatives and steps to inform the public, our staff, and other agencies about responding to the effects of climate change.

Please let me know if you have any questions or need more information.

CAH:er
PH:1301:004

Attachment

c: Jonathan E. Fielding, M.D., M.P.H.
Jeffrey Gunzenhauser, M.D., M.P.H.
Angelo Bellomo

Appendix

***Five-Point Plan to Reduce the Health Impacts of Climate Change*, 2014-2015**

The Los Angeles County Department of Public Health's framework for addressing climate change from a public health perspective.

Strategic Priority 1: INFORM **Inform and engage the general public about the nature of climate change and the health-related co-benefits associated with taking action to reduce carbon pollution**	
Goal 1.1	Develop an educational campaign to increase public awareness of the health impacts of climate change.
Goal 1.2	Prepare community outreach materials for use in raising public awareness.
Goal 1.3	Track knowledge, attitudes, perceptions, and behaviors related to climate change to evaluate the impact of future activities and determine obstacles to mitigation and adaptation actions.
Goal 1.4	Deliver presentations and outreach material to the general public.

Strategic Priority 2: PROMOTE **Promote local planning, land use, transportation, water, and energy policies that reduce greenhouse gas emissions and support the design of healthy and sustainable communities**	
Goal 2.1	Influence local governments and sectors to reduce greenhouse gas emissions and incorporate health considerations into their planning and policy development.
Goal 2.2	Incorporate healthy community design and sustainability strategies into land use decisions and projects.
Goal 2.3	Integrate public health considerations into the climate change planning of other sectors; i.e., transportation, residential energy, and urban greening.
Goal 2.4	Prepare guidance documents to promote greater use of alternative water.
Goal 2.5	Support the development of active transportation networks such as bicycle, pedestrian, and transit-supportive infrastructure to reduce vehicle miles traveled.
Goal 2.6	Convene an interdepartmental committee to implement the County Climate Action Plan by coordinating the efforts of County departments working on climate change mitigation and adaptation, and by seeking grant funding for specific activities.

Strategic Priority 3: PROVIDE **Provide guidance on climate preparedness to local government and community partners to reduce health risks and create more resilient communities**	
Goal 3.1	Provide local officials, service agencies, and community groups with community-based health status information to reduce impacts of climate change.
Goal 3.2	Collaborate with LARC, the California Public Health Working Group for the Climate Action Team, and Los Angeles County Regional Environmental and Sustainability Programs to optimize Public Health efforts.
Goal 3.3	Publish a report on the health effects of climate change on the Los Angeles region.
Goal 3.4	Convene an interdepartmental workgroup to incorporate public health considerations in climate change planning.

Strategic Priority 4: BUILD **Build the capacity of Departmental staff and programs to monitor health impacts, integrate climate preparedness, and improve climate response**	
Goal 4.1	Expand monitoring and surveillance programs to include key climate-related indicators.
Goal 4.2	Track data on environmental conditions and associated diseases related to climate change.
Goal 4.3	Develop preparedness and response plans to identify vulnerable populations in Los Angeles County.
Goal 4.4	Improve the Department's response to adverse weather events and other climate-related impacts.
Goal 4.5	Educate staff on the public health impacts of climate change.

Strategic Priority 5: ADOPT **Adopt best management practices to reduce carbon emissions associated with Departmental facilities and internal operations**	
Goal 5.1	Review and revise Public Health's policies and practices to encourage "smart travel" and reduce vehicle miles traveled through use of telecommuting, office carpools and alternative work schedules.
Goal 5.2	Implement the use of energy-efficient technologies (e.g., paperless administrative processes, paperless inspection systems, use of energy-saving equipment).
Goal 5.3	Implement green purchasing practices within Public Health and require the same from contractors and suppliers.
Goal 5.4	Prepare a template based on Public Health model practices and promote its use by other local public health organizations.

ATTACHMENT VI

DEPARTMENT OF PUBLIC WORKS

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

GAIL FARBER, Director

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IN REPLY PLEASE
REFER TO FILE: A-0

August 13, 2014

TO: William T Fujioka
Chief Executive Officer

Attention Rita Robinson

FROM: Gail Farber
Director of Public Works

JULY 3, 2012, BOARD MOTION, AGENDA ITEM 55-A
REPORT ON THE STEPS TAKEN TO PREPARE FOR THE POTENTIAL EFFECTS OF CLIMATE CHANGE

On July 3, 2012, the Board approved a motion instructing the Chief Executive Officer, in conjunction with the Directors of Public Health, Public Works, Beaches and Harbors, Regional Planning, and the Fire Chief, to review the University of California, Los Angeles' "Climate Change in the Los Angeles Region" project, document the steps being taken to prepare for the projected effects of climate change, and report back to the Board with a cost analysis on the steps being taken and recommended additional actions for the County to take to help the region prepare for the likely effects of climate change.

Attached is a report summarizing our comments on available UCLA climate change reports and practices that are being implemented and pursued by Public Works to address climate change. If you have any questions, please contact Mark Pestrella, Chief Deputy Director, at (626) 458-4001, or your staff may contact Youn Sim at (626) 458-7840 or at ysim@dpw.lacountv.gov.

YS:plg
C:MYFILES/MP/CLIMATE CHANGE

Attach.

cc: Chief Executive Office (Arena Turner)
Executive Office
Department of Beaches and Harbors
Department of Public Health
Department of Regional Planning
Fire Department

Attachment A

COMMENTS ON CLIMATE STUDIES

1. UCLA climate studies on temperature and snow pack

   a. The UCLA study provides predictions of potential changes in temperature and snow pack for long-term periods (i.e., mid-21st century). However, it lacks information on the expected impacts during short-term periods. To make this report more useful, it is recommended that the report include projection of potential impacts in smaller time increments such as every 5 years.

   b. Through the Los Angeles Regional Collaborative for Climate Action and Sustainability (LARC), it would be extremely beneficial to this region's planners to establish a web portal repository for the downscaled result/output projections from the UCLA study. A "clearinghouse" of climate change information similar to the Cal-Adapt website (http://cal-adapt.org/) but with downscaled for the Los Angeles region, would be an invaluable resource for developing adaptation plans at a local level.

   c. The temperature study focused on hot extreme (over 95 degrees F) but lacks the potential of cold extreme. If extreme hot and cold days are expected, such information would be critical to additional policy consideration or existing code revisions.

   d. A report on how future reduction of snowfall will impact our overall drought condition would be of great benefit.

2. USC climate study on sea level rise

   a. This report analyzed the effects of sea level rise along coastal areas only within the City of Los Angeles' jurisdiction excluding the majority of Los Angeles County's coastline. To make this report useful, it is recommended that the scope of the study be expanded to include the entire coastline of the County.

   b. See No.1.a above for potential impact of sea level rise.

   c. See No.1.b above for potential impact of sea level rise.

   d. The report outlines general techniques to maintain or restore natural sand supply along the coast. However, there is no direct mention of utilizing sediment flushing or sluicing as techniques, and these options should be considered viable in addition to those listed. For reference, please see the Sediment Management Strategic Plan 2012-2032 developed by Public Works.

      http://dpw.lacounty.gov/lacfcd/sediment/stplan.aspx

Attachment B

UPDATE TO PREVIOUS REPORT ON THE ACTIONS TAKEN BY DEPARTMENT OF PUBLIC WORKS TO ADDRESS CLIMATE CHANGE

In its December 27, 2012, progress report, Public Works reported several actions that had been initiated to address climate change impacts. Since then, Public Works has continued implementing the reported actions and further improved them to build resiliency for continued operations and community services and to adapt to the climate impacts while reducing GHG emissions from the department operations as well as from the community.

Details of the update to previously reported actions are provided in Table 1. Note that each action is presented in conjunction with climate impact sectors that the action aims to support. A complete list of impact sectors can be found in the climate adaptation strategy matrix (Table 2).

Attachment C

REPORT ON ADDITIONAL ACTIONS IDENTIFIED BY DEPARTMENT OF PUBLIC WORKS TO ADDRESS CLIMATE CHANGE

1. Public Works Climate Adaptation Strategies Framework

According to various large-scale studies conducted by state and federal agencies, commonly predicted outcome of the climate change encompasses increased temperature accompanied by severe drought and more frequent wild fires, which along with intense storms, could lead to significant debris and mud-flow threats in the foothill areas. Rise in sea levels could affect the low-lying coastal community and infrastructure.

Climate change may have a number of short- and long-term impacts on a variety of sectors of the County community including, but not limited to, agriculture, public health, ecosystems and natural resources, energy, infrastructure, emergency management, and local economy. Therefore, it is critical to develop strategies to prepare for and to build resiliency against adverse impacts.

Development of climate adaptation strategies may be conducted sequentially starting with evaluation of threats, vulnerability and risk assessments, identification of necessary actions, and implementation and maintenance of identified actions. The strategies may also investigate short- and long-term funding mechanisms.

Public Works has proactively initiated a process of adaptation planning described above by researching various state and federal guidance manuals that are designed to assist local governments with climate adaptation strategies within agency's own operations as well as when providing support to community level efforts.

As a first step, Public Works created a framework for climate adaptation strategies by establishing a matrix that would guide and track the strategy development. See Table 2 for the matrix. Using the matrix, Public Works has applied a consistent approach across various impact sectors in examining potential threats and sensitivity of the risks and vulnerability of department operations. Results of the risk assessment will provide critical information to evaluating existing and identifying additional adaptation actions. Ultimately, adaptation actions identified for individual impact sectors will be prioritized based on the level of potential impact and existing adaptive capacity.

Public Works will make continuous efforts to explore new ideas to develop, implement, and maintain Countywide adaptation strategies to ensure the County community and public services to be resilient against climate change threats.

2. Measures to Comply with Emergency Water Conservation Regulations

   In compliance with the County policy as adopted on July 22, 2014, by the Board of Supervisors and the subsequent memo dated July 23, 2014, from Chief Executive Officer Bill Fujioka instructing all County personnel to immediately implement recently adopted, statewide emergency water conservation regulations, Public Works promptly initiated actions to implement the following water conservation measures: immediately ceasing spray irrigation and preparing for drought-tolerant and stormwater quality improvements at the Headquarters campus, monitoring, repairing, and reporting water leaks and over spray at the Department's landscape and facilities, and updating the department's mobile application to add a water wasting reporting feature.

3. Sustainability implementation initiative

   Public Works recognizes that sustainability is a key principle in developing strategies to mitigate climate change and adapt to the impacts. As an organizing paradigm that applies to the department mission and the entire business programs, sustainability was identified as one of the departmental values and was included in the department's five strategic focus areas. Since then, efforts have focused on institutionalizing sustainability through synchronized, enterprise-wide initiatives rather than isolated efforts.

   By effectively adopting sustainability principles, Public Works has assessed opportunities across all operations and services, thereby developing strategic actions that would reduce Greenhouse Gas and air pollutant emissions and address climate change threats and infrastructure vulnerabilities.

   Under the sustainability implementation initiative, various accomplishments have been made and efforts are continuing. A sustainability implementation framework has been established, which consists of an Executive Team, Sustainability Council, Sustainability Officer, and ad-hoc Work Groups. A Public Works policy on sustainability is in development, which will guide the entire initiative. A business program level planning framework has also been in development, which consists of sustainability goal areas, key sustainability indicators, performance metrics, and progress tracking.

   Details of the latest achievements of this initiative are available in Public Works Sustainability Webpage:

   http://dpw.lacounty.gov/adm/sustainability/Default.aspx

Table 1. Update to previously reported climate actions

Actions	Update	Impact Sectors
Los Angeles Basin Stormwater Conservation Study (LA Basin Study)	On September 18, 2012, the Board of Supervisors approved Public Works entering into a Memorandum of Agreement with the United States Department of Interior – Bureau of Reclamation (Reclamation) to conduct the Los Angeles Basin Stormwater Conservation Study (LA Basin Study). The LA Basin Study is a long-range planning effort that is evaluating the potential of the existing Los Angeles County Flood Control District (LACFCD) facilities, other interrelated infrastructure, and potential new facility concepts to increase the capture of stormwater for water supply under uncertain climate futures. The LA Basin Study will also assess the current operations for existing LACFCD facilities and determine these operations' adequacy for the future. Detailed scientific, engineering, and economic analyses are being conducted to help address future water supply demands and challenges as a result of climate change. Work on the LA Basin Study began in December 2013 and will take three years to complete. The first major task of the LA Basin Study, downscaled climate change and hydrologic modeling projections, was completed in December 2013. Currently, the LA Basin Study is performing an analysis on the existing LACFCD infrastructure and its response to the future climate projections. Additionally, efforts have begun on water supply and water demand projections for the study area. Following the current two tasks, the LA Basin Study will proceed to develop concepts to enhance the infrastructure and its operations with respect to future climate change. These concepts may be structural or operational in characteristic and could also recommend new facilities.	• Water management • Water infrastructure
Envision™	The Institute of Sustainable Infrastructure's (ISI) Envision™ Rating System has been adopted as a standard sustainable infrastructure rating tool and its full program of education and research has been implemented. Staff has been or is in the process of being trained to use Envision™ and credentialed as Envision Sustainability Professionals (ENV SP) with the ISI. According to ISI, Public Works has the most ENV SP credentialed staff among the nation's public agencies. Using the rating system and supporting research for sustainability, Public Works now evaluates and assesses, at any point during its life cycle, the design, construction, and operation of infrastructure of all sizes and complexities in terms of economic, environmental, and social impacts. All infrastructure projects have been rated during early phases to maximize opportunity for sustainable practices to mitigate and adapt to climate impact. The Sun Valley Watershed Multi-Benefit Project has been submitted to the ISI for a Platinum Award.	All sectors
Sustainable Projects for GHG reduction	Since receiving LEED Gold certification for the Headquarters building, Public Works has continued applying sustainable principles of LEED as a guideline for its operation and maintenance. We have also continued to work with our sustainability partners to identify opportunities to implement more sustainable practices and equipment at our Headquarters campus. The cooling tower servicing our Headquarters annex building and variable frequency drives for domestic water are just two of many examples.	• Land use planning (Building design) •Facility operations and maintenance
Best Technologies for Fleet	Eleven electric vehicle charging stations have been constructed and are now operational. In addition, purchase of 28 alternative fuel vehicles (hybrid and compressed natural gas combined) has been budgeted for Fiscal Year 2014-15.	Transportation infrastructure (Fleet)
Green Building Code Revision	Public Works adopted the 2014 County of Los Angeles Green Building Standards Code on January 1, 2014. This Code amends the 2013 California Green Building Standards Code (CALGreen) with additional local requirements including an increase in drought-tolerant planting, higher construction and demolition debris recycling thresholds, and mandatory Tier 1 compliance for newly constructed high-rise buildings and non-residential buildings greater than 25,000 square feet. These amendments, coupled with the 2013 CALGreen reduction in energy usage and increased additions and alterations scoping thresholds, will lower GHG emissions associated with private development and preserve the County as a regional leader in sustainable construction.	Land use planning (Development planning and Building design)
Low-Impact Development Ordinance	On November 5, 2013, the Board of Supervisors approved the revisions to the County's Low Impact Development (LID) Ordinance, through which Public Works requires new development and re-development projects to comply with its LID standards. LID incorporates small, multifunctional, cost-effective landscape features, called Best Management Practices (BMP's), to manage storm runoff along with its quality through retention and redistribution. LID improves the quality and quantity of vegetation, which moderates the climate globally and locally by regulating greenhouse gasses and lowers heat island effects that tend to occur within urbanized areas. Similarly, LID creates healthy soils which lock up carbon, provides natural water filtration, increases groundwater supplies, and reduces the demands on flood control facilities. All of this can lower GHG emission of facilities and operations. In February 2014 Public Works created an updated LID Standards Manual which provides guidance for the implementation of stormwater quality control measures in new development and re-development projects in unincorporated areas of the County with the intention of improving water quality and mitigating potential water quality impacts from stormwater.	Land use planning (Development planning and Building design)

Table 2. DPW Climate Change Adaptation Strategy Matrix

Impact Sectors	Components	DPW Service Areas											Divisions Involved	Causes	Potential impact (Risks)	Vulnerability		Existing adaptive capacity (i.e., policies, plans, guidelines, programs, practices, services, operations, or assets/resources)		Additional adaptive needs (i.e., policies, plans, guidelines, programs, practices, services, operations, or assets/resources)	
		Technology & Information	Human Resources	Financial Management	Facilities and Shared Services	Emergency Management	Transportation	Water Resources	Waste Management	Public Buildings	Development Services	Others (DRG)				Sensitivity: Likelihood Level (High, Med, Low) and Time frame (immediate, near-term, long-term)	Operational vulnerabilities	Title	Extent /Limitation	Title	Need Priority (High, Med, Low)
Equity, health, and socio-economic	Public and DPW operational health and safety																				
	Risk management																				
	Public education																				
Water Management	Flood management																				
	Water supply management																				
Water Infrastructure	Water distribution system																				
	Groundwater																				
	Sewer																				
	Stormwater/Urban Runoff																				
	Sediment																				
Transportation Infrastructure	Roads, bikeway, and pedestrian walkway																				
	Transits																				
	Traffic instruments																				
	Fleet																				
Waste Infrastructure	Solid waste management facilities (Landfills & materials processing facilities)																				
	Hazardous wastes																				
Facility O&M	Energy use																				
	Water use																				
Land Use planning	Development planning																				
	Building design																				
	Watershed Management (including ecosystem and biodiversity)																				
Infrastructure financing	State and Federal support																				
	Local Funding development																				
Emergency Management	Emergency response and recovery																				
	Emergency preparedness and planning																				

ATTACHMENT VII

DEPARTMENT OF REGIONAL PLANNING

Los Angeles County
Department of Regional Planning

Planning for the Challenges Ahead

Richard J. Bruckner
Director

August 15, 2014

TO: William T Fujioka
Chief Executive Officer

Attention: Rita L. Robinson
Deputy Chief Executive Officer
Community Services Cluster

FROM: Richard J. Bruckner
Director

REPORT ON THE STEPS TAKEN TO PREPARE FOR THE POTENTIAL EFFECTS OF CLIMATE CHANGE (JULY 3, 2012, ITEM 55-A)

On July 13, 2012, the Board of Supervisors instructed the Chief Executive Office (CEO), in conjunction with the Departments of Public Health, Public Works, Beaches and Harbors, Regional Planning, and the Fire Department, in cooperation with applicable utilities, to review the information provided by the Climate Change in the Los Angeles Region Project, as well as other relevant information; document the steps to prepare for the projected effects of climate change; and recommend any additional actions that the County should take to help the region prepare for the likely effects of climate change.

CLIMATE STUDIES REVIEW

The Department of Regional Planning (Department) has reviewed the first two University of California, Los Angeles (UCLA) climate studies on temperature and snowfall. Both studies underscore the point that the effects of climate change are inevitable. The Snowfall Study also indicates that some of the effects of snowfall and snowpack loss anticipated to occur at the end of the century can be mitigated with aggressive reductions in greenhouse gas (GHG) emissions. The emphasis on both adaptation and mitigation strategies is an important consideration for future long-range planning initiatives.

Of note in the Temperature Study is that by mid-century, we can anticipate a significant increase in temperatures throughout the unincorporated areas, although the effects will be greatest and occur the fastest in the desert and mountain communities. The study supports the Department's efforts to reduce outdoor ambient temperatures and protect people from extreme heat through strategies such as: cool roofs and cool pavement to reduce the urban heat island effect; energy efficient buildings; and tree planting requirements and design standards that provide shade and shelter.

The Snowfall Study indicates that a reduction in snowfall and snowpack will result in changes to hydrology and ecosystems in the Los Angeles area, and that more research is needed to understand the specific impacts. The Department supports additional research, as water resources and critical plant and animal habitats are major considerations in how the County regulates land use and protects and manages resources in the unincorporated areas.

CURRENT CLIMATE CHANGE EFFORTS

The following highlights major planning initiatives that address climate change through adaptation and mitigation strategies in the unincorporated areas. These initiatives represent collaborations across many County departments and community partners.

General Plan Update

The General Plan Update (Draft General Plan), which is a comprehensive effort to update the County's 1980 General Plan, guides growth in the unincorporated areas through goals, policies, and programs, and lays the foundation for future community-based planning initiatives.

Community Climate Action Plan (CCAP): The CCAP, which is a component of the Draft General Plan, identifies GHG emissions related to community activities in the unincorporated areas; establishes a reduction target consistent with Assembly Bill 32; and provides a roadmap for successfully implementing actions selected by the County to reduce GHG emissions. The CCAP includes a 2020 GHG emissions target of 11% below 2010 levels, which will reduce GHG emissions generated within the unincorporated areas by approximately 2.4 million metric tons of carbon dioxide equivalent. In conjunction with state-level actions that are implemented at the local level, the CCAP includes 26 local actions that are necessary to meet the County's emissions reduction target. These local actions are grouped into five strategy areas: Green Building and Energy; Land Use and Transportation; Water Conservation and Wastewater; Waste Reduction, Reuse and Recycling; and Land Conservation and Tree Planting. As part of the CCAP effort, the Department has developed tools and resources to facilitate CCAP implementation, including a report on financing options for CCAP actions, and a tracking tool to estimate the County's progress in reducing GHG emissions. The Draft CCAP is available on the Department web site at the following link: planning.lacounty.gov/ccap.

Special Management Areas/Hazard, Environmental and Resource Constraints Map: The Hazard, Environmental and Resource Constraints Map is a tool in the Draft Land Use Element of the Draft General Plan that identifies special management areas with constraints, such as Very High Fire Hazard Severity Zones, Flood Hazard Zones, Tsunami Hazard Areas, Significant Ecological Areas, and Hillside Management Areas. The purpose of the Hazard, Environmental and Resource Constraints Map is to guide the development of land use policies for unincorporated areas through community-based planning efforts. It is also a tool to raise awareness to the public of potential site constraints and regulations. The Draft General Plan works toward reducing potential development in high-risk areas and facilitating development in safer areas, while not constraining overall growth. The Hazard, Environmental and Resource Constraints Map is available on the Department web site at the following link:
planning.lacounty.gov/assets/upl/project/gp_2035_FIG_C-1_appendix014.pdf.

The General Plan Update is currently in the public hearing process before the Regional Planning Commission. We anticipate that the General Plan Update will go before the Board of Supervisors for adoption in the spring of 2015.

Renewable Energy Ordinance
The Renewable Energy Ordinance (REO) amends Title 22 of the County Code to establish regulations for the development of small-scale renewable energy systems, utility-scale renewable energy facilities, and temporary meteorological towers. The REO will help facilitate the development of renewable energy facilities on rooftops and other structures and the development of personal systems for on-site use as well as address concerns over environmental impacts and will establish development standards for ground-and-structure-mounted solar and wind renewable energy generation.

We anticipate that the REO will go before the Regional Planning Commission in January 2015, and to the Board of Supervisors for adoption in March 2015.

Santa Monica Mountains Local Coastal Program
The Santa Monica Mountains Local Coastal Program (LCP) is a comprehensive planning and regulatory program to manage the conservation and development of coastal resources in the Santa Monica Mountains Coastal Zone. The Santa Monica Mountains LCP includes goals and policies that address the potential impacts of sea level rise, including identifying the most vulnerable areas, structures, facilities and resources on the shoreline.

On August 26, 2014, the Board of Supervisors will consider the adoption of the LCP as approved by the California Coastal Commission; we anticipate final certification in 2014.

Tree Planting Ordinance
The draft Tree Planting Ordinance proposes to amend the County Code to establish new tree planting requirements that will reduce air pollution, urban run-off and the urban heat island effect.

The draft Tree Planting Ordinance is currently in the public hearing process before the Regional Planning Commission. We anticipate that the Tree Planting Ordinance will go before the Board of Supervisors for adoption in February 2015.

Other Sustainability Initiatives
Many other efforts underway in the Department address climate change through the promotion of active transportation strategies, protection of resources, and promotion of sustainable development. These efforts include: the Antelope Valley Area Plan Update; Marina del Rey Visioning Effort; East Los Angeles 3rd Street Plan; West Carson Transit Oriented District Specific Plan; Willowbrook Transit Oriented District Specific Plan; Healthy Neighborhood Design Guidelines; and the Small Lot Subdivision Ordinance.

CONCLUSION

The first two UCLA climate studies on temperature and snowfall underscore the urgency of the County to act on climate change, and the importance of both adaptation and mitigation strategies. The studies support the County's current initiatives, and should be used to inform the County's critical next steps in addressing climate change. The Department looks forward to reviewing the other UCLA climate studies as they are released.

Should you have any questions or concerns about any of these efforts, please contact Mark Child, Deputy Director, Advance Planning Division at (213) 974-6457 or mchild@planning.lacounty.gov.

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